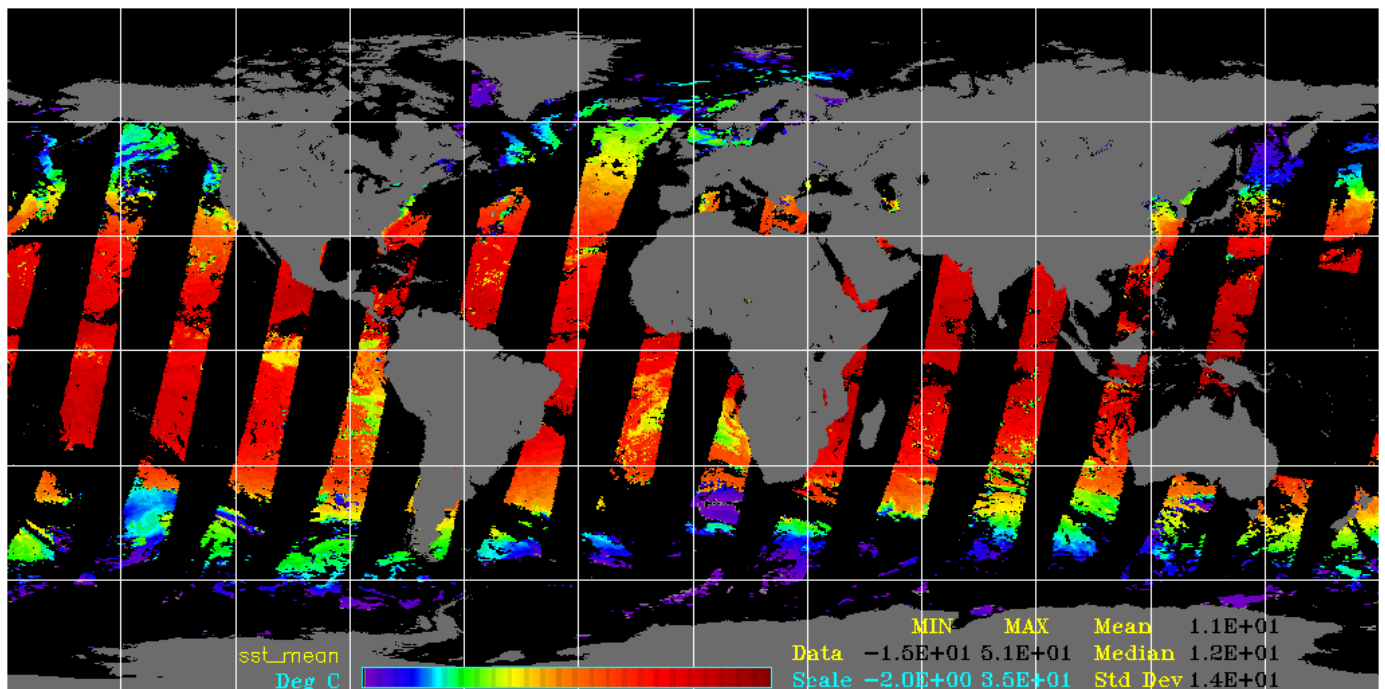
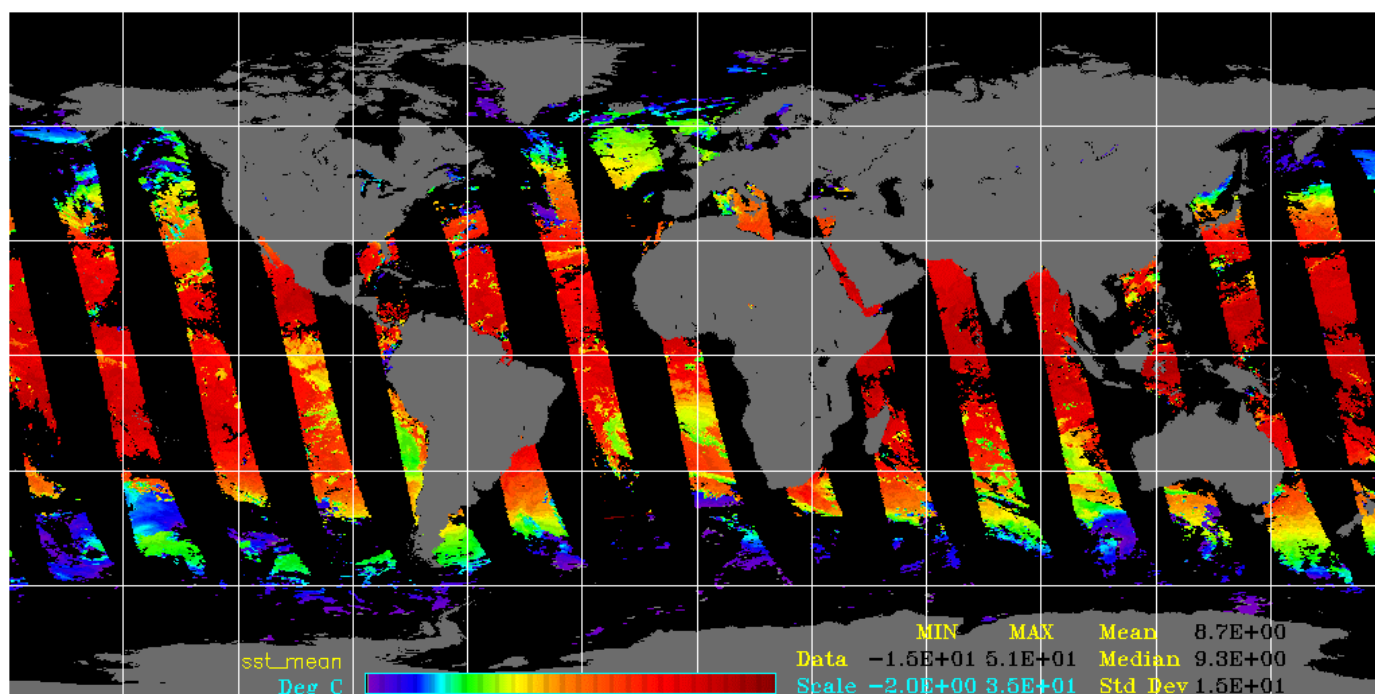


Terra Day SST center ± 45 degrees - ascending
(will be similar to Aqua night descending)



Make two vugraphs of this . Let 1=Terra Day and 2 = Aqua night. Slide one horizontally across the other.

Terra night (ascending) SST ± 45 swath
Similar configuration to Aqua day (ascending)



What should be the relation to Aqua and Terra consecutive (descending) swaths?

- Choices -

- A. Full over lap (nadir locations closely controlled to the same WRS-2 path)
Combined coverage would look similar to previous slides
- B . Minimal overlap (nadir locations offset maximally)
Alternate s/c will give nadir coverage centered between swaths on the previous slides
- C. Somewhere in between.

- Choices as far as Mission control

- To date, this has been a free variable. Aqua Project has placed no requirements on this. Consequently, the WRS-2 relationship between Aqua and Terra is currently undefined, but will be defined by orbit raising and launch events, whereupon it will be fixed for the entire mission. Thus, we would probably get choice C. All choices appear to be possible at this point.

- What are possible science benefits for above choices?

If there are clear science benefits for a particular relation, we need to voice them and develop a recommendation ASAP.

- Since benefits affect day with night comparisons, thermal band product comparisons are the sole beneficiary. SST, LST, ice, (some atmos ?? clouds move - help, chris).
- Issue does not affect glint location, which is controlled only by the local equatorial crossing time. LET is not affected by what WRS path the satellite is on.
- Within day, and within night, merged data will merge ascending and descending views. Combined coverage is minimally affected by which WRS-2 path Aqua is placed on.

Case for choice A: Same nadir track

If Aqua at night (1:30 am) were to occupy the same WRS-2 path as did Terra the next day (10:30 am), then the pair of descending swaths would coincide spatially. This would provide nearly identical satellite viewing geometry for the earth's surface, and might permit more precise measurements of day-night thermal differences at a given location.

In essence, there could be two pairs of exact overlap T-n/A-d, and A-n/T-d with close to the same viewing geometry.

If the descending passes were not congruent, then day-night studies might be of a less precise nature, and would include all uncertainty terms between the two sensors and atmospheric corrections.

Full global coverage (except for the lenses) is provided by each s/c. Combining Terra and Aqua passes at full swath gives complete daytime and night-time coverage.

Currently, Land (Vermote) and Oceans (Esaias, Evans) think this is the preferred configuration. They admit that more insight would be useful.